INTERCOLLEGIATE BROADCASTING SYSTEM

MEMORANDUM

October 9, 1948

To : Station Managers of Member Stations - Trial and full Member
ATTENTION: Technical Directors
From : I. B. S. Engineering Department

Subject: Field Strength Data File: T 2.1

URGENT

Last Spring we sent the enclosed memo to all full Member stations, and received replies from about 12. For those Member stations who have replied, we thank you for your attention to this matter, and for those who have not replied, please do so AT ONCE.

The Federal Communications Commission has been making an intensive study of carrier current broadcasting to revise the present rules. In view of insufficient data, the Commission has been unable to proceed rapidly in this case. However, within the past week, engineering recommendations were prepared by the FCC. These recommendations call for serious revisions to the low power carrier current regulations. (Rules 2.101 through 2.104; they are given on page TI-111 of your Technical Data Book).

According to present indications the Commission intends to make the new rules more stringent than the existing regulations (referred to above).

The FCC has requested that IBS obtain and submit extensive data on the operation of its stations. Such data will include operating frequency and type of frequency control, power input to final stage of all transmitters and r.f. amplifiers, sketch of type of coupling methods used, type of transmission medium, and coverage area along with field strength data.

Public hearing will be held before any changes in the present rules go into effect, and in order for IBS properly to protect your interests at these hearings, we urgently require your cooperation immediately not only to submit the data originally requested last Spring, but now to obtain complete field strength measurements of your station.

In other words, we must demonstrate to the FCC with facts just what we believe is a reasonable radiation limit to provide adequate coverage. We must base our recommendations and arguments on definate field strength data.

It seems reasonably certain that the FCC will, when the new rules are worked out and put into effect after the hearings, enforce these new rules by requiring each station to "register." Before a station can register we expect that the FCC will require submission of complete engineering data and field strength measurements.

From the foregoing you can see that it should be the objective of every station to bend evfry effort AT LEAST to become legal under the present regulations in the hope that the new regulations will be no more stringent than the present ones, so that it will be possible to "register" with the FCC and not be forced to suspend operations pending an overhauling of the r.f. system after the new regulations go into effect. You should determine the legality of your station now, and to do this requires the use of an accurate field strength meter.

Thus, it was decided at the Governing Council and Executive Committee meetings held October 2-3 that it not only would be a good plan but a good future investment if each station in IBS contributed in a cooperative venture to buy field strength meters, since most stations do not have the use of such an instrument and can not afford to purchase a unit outright.

The IBS Engineering Department has been making a careful study of field strength meters for some time, and has looked into the relative costs vs. performance characteristics of available units. The type agreed upon at the Oct. 2-3 meeting is the new RCA Model WX-2A, which nets for a little under $600 complete with loop antenna, batteries, and shipping case. A picture of this field strength meter, less shipping case can be seen on page 45 of the October issue of Electronics magazine. This meter appears to be the most reasonably priced instrument available which is sufficiently well engineered to obtain accurate data.

A plan has been worked out whereby each Trial and full Member station in IBS will pay a fixed amount for a "share" ($67.50) in a meter, and as new stations are added to the system they too must pay this amount in order to have use of an instrument. The bookkeeping for this project will be handled by the Business Manager of IBS in an account kept separate from all others. All excess monies will go for shipping charges, replacement batteries and tubes, and necessary re-calibration and repairs. It is proposed that eight meters be purchased, provided all Trial and full Member stations contribute, since this will result in about one meter for every ten stations. If all eight meters are financed they will be assigned for use by regions as follows:

New England - (1) New York State - (1) Middle Atlantic - (1)
Southern and Capital - (1) Great Lakes, Midwestern and Southwerstern - (3)
Western - (1) Total - (8)

Certain regions have been combined since they will then collectively have enough meters to average ten stations per meter.

The meters will be purchased as fast as the money is received from the stations who wish to participate in this plan, and these stations will have initial priority on the use of an instrument in the order in which their payments are received. All checks should be made payable to the Intercollegiate Broadcasting System, Inc. and sent to the New York Office which is at WKCR, Hamilton Annex, Columbia University, New York 27, N.Y.

The field strength meters will become the property of the stations who invest in them under this cooperative plan, and ownership shall be on a regional basis in so far as is possible, along the lines outlined previously. The Regional Representatives of these regions will be responsible for the instrument in their region, setting up the routing for the instrument from one station to the next, and making certain that it is used according to plan. These representatives will see to it that the meters receive an overhauling at regular intervals as well as when trouble develops so that readings obtained will be reasonably accurate. Along with each meter there will come uniform instructions for its use in making measurements amound the campus, as well as a sturdy shipping box with sponge rubber lining, and routing instructions. The shipping box will contain a supply of reply postcards and when the meter is obtained a card is to be mailed to the Regional Representative and to the Engineering Director of IBS so that the location of each meter is known definately at all times. This will permit changing the routing of a given meter if necessary to cope with an exceptional emergency.

In summary, your station is being asked (unless you have or plan to buy yourself an FCC approved meter having a calibrated loop antenna) to invest $67.50 in the future of your station and of college campus radio broadcasting. Without accurate data we in IBS who will represent you at the FCC hearings will be unable to protect your best interests, and without a meter after the new regulations go into effect your station is taking a serious chance of being closed down because of excessive radiation. To be closed down of course means an interruption of the service of your station to the college community, and a loss of revenue when advertising committements must be cancelled. Indeed,

an unexpected shut-down might in some cases prove a mortal blow from which the station would not recover, at least not for several semesters. The only way to avoid these difficulties is to begin at once to obtain use of a field strength meter so that you can put your r.f. system into the best possible condition before the new regulations go into effect.

Of course, the IBS Engineering Department will be as always at your service to help you improve or modify your r.f. system should this prove necessary in order for you to comply with the existing or new regulations.

To enroll in this plan which will enable your station to provide uninterrupted service in the face of changes in the FCC rules, fill out the form below and mail it at once to the New York Office. Remember, initial priority for the use of the field strength meters purchased under this plan will be determined by the order in which the checks are received!

Herbert B. Barlow
Engineering Director

Application for purchase of share in RCA WX-2A Field Strength Meter

To: Mr. Paul Yergin, Business Manager
Intercollegiate Broadcasting System
WKCR, Hamilton Annex
Columbia University, N.Y. 27, N.Y.

1) We do____, do not____ have an approved type of field strength meter available; it is made by_____ and bears type designation_____.

2) We have____, have not____ made or had made accurate field strength data of our station's r.f. system; a transcription of this data is____, is not____, enclosed.

3) We wish to cooperate in the plan jointly to purchase WX-2A field strength meters with other Trial and full Member groups in the I.B.S. _____

4a) Enclosed is payment of $67.50 for one share in the ownership of a WX-2A field strength meter.____.

4b) Payment of $67.50 for one share in the ownership of a WX-2A field strength meter will be sent by _____.

5) If possible we would like to use the meter for the first time on _____.

6) We anticipate that we could relinquish the meter in _____ days after first receiving it.

Station_____ Signed_____

College_____ Position_____

Date_____